

Listing of Claims:

1. (Currently Amended) A method comprising:
dynamically establishing ATM adaptation layer 2 (AAL2) channel identifiers (CIDs) on a call-by-call basis using ATM standards-based call control signaling protocols of an AAL2 signaling layer;
multiplexing voice information from one channel of a customer premise equipment (CPE) into a plurality of AAL2 packets at a network edge device having a common CID of the AAL2 CIDs; and
executing a call set-up process in the AAL2 signaling layer, comprising mapping the common CID to a virtual path/virtual channel (VP/VC) that forms part of a virtual user network interface (UNI) to an ATM network.
2. (Cancelled) The method of claim 1 further comprising mapping the CIDs to a virtual path/virtual channel (VP/VC) that forms part of a virtual user network interface (UNI) to an ATM network.
3. (Currently Amended) An ATM node configured to:
dynamically establish ATM adaptation layer 2 (AAL2) channel identifiers (CIDs) on a call-by-call basis using ATM standards-based call control signaling protocols of an AAL2 signaling layer;
multiplex voice information from one channel of a customer premise equipment (CPE) into a plurality of AAL2 packets at a network edge device having a common CID of the AAL2 CIDs; and
execute a call set-up process in the AAL2 signaling layer, comprising mapping the common CID to a virtual path/virtual channel (VP/VC) that forms part of a virtual user network interface (UNI) to an ATM network.
4. (Cancelled) The ATM node of claim 3 further configured to map each of the CIDs to a virtual path/virtual channel (VP/VC) that forms part of a virtual user network interface (UNI) to an ATM network.
5. (Original) A method, comprising:

~~mapping ATM adaptation layer 2 (AAL2) channel identifiers (CIDs) to a virtual path/virtual channel (VP/VC) within a standards-based ATM call control protocol~~
multiplexing voice information at a network edge device from one channel of a customer premise equipment (CPE) into a plurality of ATM adaptation layer 2 (AAL2) packets having a common channel identifier (CID); and
executing a call set-up process in an AAL2 signaling layer, comprising mapping the common CID to a virtual path/virtual channel (VP/VC) as part of a standards-based ATM call control protocol of the AAL2 signaling layer, wherein the VP/VC forms part of a virtual user network interface (UNI) to an ATM network.

6. (Original) The method of claim 5 wherein the standards-based ATM call control protocol is selected from the list comprising UNI 3.1/4.0 and Q.2931.

7. (Currently Amended) The method of claim 5 wherein the mapping is performed at a the network edge device communicatively coupled to the customer premises equipment.

8. (Original) The method of claim 7 wherein the network edge device is communicatively coupled to the customer premises equipment over time division multiplexed communication channels.

9. (Currently Amended) The method of claim 8 further comprising multiplexing the time division multiplexed communication channels to ~~one or more~~ multiple AAL2 VPs/VCs.

10. (Currently Amended) The method of claim 9 further comprising mapping the ~~one or more~~ multiple AAL2 VPs/VCs to the CIDs prior to mapping the CIDs to the VP/VC.

11. (Currently Amended) Computer-readable instructions, which when implemented by a processor, cause the processor to: ~~map ATM adaptation layer 2 (AAL2) channel identifiers (CIDs) to a virtual path/virtual channel (VP/VC) within a standard-based ATM call control protocol~~
multiplex voice information at a network edge device from one channel of a customer premise equipment (CPE) into a plurality of ATM adaptation layer 2 (AAL2) packets having a common channel identifier (CID); and

execute a call set-up process in an AAL2 signaling layer, comprising mapping the common CID to a virtual path/virtual channel (VP/VC) as part of a standards-based ATM call control protocol of the AAL2 signaling layer, wherein the VP/VC forms part of a virtual user network interface (UNI) to an ATM network.

12. (Currently Amended) ~~A computer-readable medium embodying the~~ The computer-readable instructions of claim 11, wherein the computer-readable instructions are embodied in a computer readable medium.

13. (Currently Amended) The computer-readable instructions of claim 11 further comprising additional instructions, which when implemented by the processor, cause the processor to multiplex ~~one or more~~ at least one time division multiplexed communication channels to ~~one or more~~ multiple AAL2 VPs/VCs prior to mapping the AAL2 CIDs to the VP/VC.

14. (Currently Amended) The computer-readable instructions of claim 13 further comprising yet more instructions, which when executed by the processor, cause the processor to map the multiple ~~one or more~~ AAL2 VPs/VCs to the CIDs prior to mapping the CIDs to the VP/VC.